

ABSTRACT OF THE DISCLOSURE

A device and method of making a device for indicating a change in condition is disclosed.

A first embodiment is a device for indicating a transition from a frozen condition to a thawed condition is disclosed. The device includes a housing and a capsule. A first reactant and a liquid

5 are included within the capsule. The liquid is chosen such that it expands upon freezing. The capsule is sized such that when the liquid freezes and expands, the capsule fractures. A second reactant is provided within the housing. The location of the second reactant and the method of attaching (if any) the second reactant to the housing may take various forms. When the liquid within the capsule freezes, it expands and fractures the capsule. Upon thawing, the reactant

10 within the capsule escapes and mixes with the reactant located outside the capsule. A second embodiment is a time-temperature indicator. A flexible housing is used, allowing the user to manually deform the housing to fracture a capsule enclosed therein. The reactants combine to produce a color. The color is chosen to be a different color than the housing, allowing a person viewing the indicator device to quickly and easily determine the status of the object being

15 monitored. The threshold temperature at which the device will indicate a changed condition may be varied. Exemplary temperatures include below the freezing temperature, at the freezing temperature, and above the freezing temperature. The capsule composition may be varied such that it melts at a predetermined temperature. Thus, the device may also be used to indicated whether a high temperature has been met or exceeded.